Decision 03-02-064 February 27, 2003

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of Looking Glass Networks, Inc. (U-6393-C) for a Certificate of Public Convenience and Necessity Pursuant to Public Utilities Code Section 1001 to Operate as a Provider of Facilities-Based and Resale Local Exchange and Interexchange Telecommunications Service Within the State of California.	Application 02-05-029 (Filed May 9, 2002)

O P I N I O N

I. Summary

Looking Glass Networks, Inc. (Applicant) seeks a certificate of public convenience and necessity (CPCN) under Pub. Util. Code § 1001 for authority to provide full facilities-based local exchange and interexchange telecommunications services. Specifically, Applicant requests authority to construct new conduit facilities, and repair, replace, or interconnect existing conduit in which it will install fiber optic cable. Applicant's construction will also include the use of aerial structures. By this decision, we grant the requested authority subject to the terms and conditions set forth below, and close the proceeding.

II. Background

Applicant, a Delaware corporation, seeks authority to provide full facilities-based local exchange and interexchange services. Applicant's principal

place of business is located at 1111 W. 22nd Street, Suite 600, Oak Brook, Illinois 60523.

By D.00-09-023, Applicant was granted limited facilities-based and resale authority to provide local exchange and interexchange services. By this application, it requests facilities-based authority to construct specified facilities. Therefore, the only issue before us in this application is whether its proposed construction, in consideration of the requirements of the California Environmental Quality Act (CEQA), should be approved. Applicant remains subject to the requirements of D.00-09-023.

III. CEQA

CEQA requires the Commission as the designated lead agency to assess the potential environmental impact of a project in order that adverse effects are avoided, alternatives are investigated, and environmental quality is restored or enhanced to the fullest extent possible.

The purpose of this application is to create networks to serve metropolitan areas in the San Francisco Bay Area, and the greater Los Angeles Basin area. Applicant proposes to construct new conduit facilities, including tie-ins and manhole installation where existing facilities are not available for lease or purchase, or where it is not cost effective to use existing facilities. In addition, Applicant proposes the repair, replacement, or interconnection of existing conduit, including the use of aerial structures, in which it will install fiber optic cable. The applicant will use standard construction methods, including trenching, directional boring and aerial. Applicant will use state and local rights-of-way; and other designated utility corridors.

Rule 17.1 of the Commission's Rules of Practice and Procedure requires the proponent of any project subject to Commission approval to submit with the

application for approval of such project a Proponent's Environmental Assessment (PEA). The PEA is used by the Commission to focus on any impacts of the project that may be of concern, and to prepare the Commission's Initial Study to determine whether the project needs a Negative Declaration or an Environmental Impact Report.

Based on its assessment of the application and the PEA, the Commission staff prepared a draft Initial Study / Mitigated Negative Declaration (draft MND) generally describing the project and the potential environmental effects. This means that, although the Initial Study identified potentially significant impacts, revisions that mitigate the impacts to a less than significant level have been agreed to by the Applicant. (Pub. Res. Code § 21080(c)(2).)

The application did not define the final alignments that would be used for proposed project construction. However, Applicant identified study zones (the San Francisco Bay Area and the Los Angeles Basin) where construction would occur. Because the application did not identify final project alignments, Applicant incorporated a programmatic process as part of its project implementation and the draft MND evaluated impacts on a programmatic level. Therefore, as a component of the project description, the Commission and all responsible agencies will have an additional opportunity to review and comment on the specific construction plans prior to construction in order to determine whether the current level of environmental review is appropriate.

The Commission staff prepared a public notice that announced the preparation of the draft MND, the locations where it was available for review, and the deadline for written comments. The public notice was advertised in newspapers throughout the state. The draft MND was submitted to the State Clearinghouse, main local libraries, and city and county planning departments in

project counties, as well as other appropriate state, county and city agencies for review and comment.

Public comments on the draft MND were reviewed and answered, as necessary. The Commission staff then finalized the MND (final MND). The final MND includes a list of mitigation measures with which Applicant must comply as a condition of its CPCN authority. It also includes a Mitigation Monitoring Compliance and Reporting Plan to ensure that the mitigation measures are followed and implemented as intended. The Introduction, Project Description, and Environmental Determination of the final MND are included as Attachment A. The Implementation and Monitoring Plan from the final MND is included as Attachment B. The final MND shall be attached to the formal file copy of this decision and is incorporated herein by reference. We hereby approve the final MND.

IV. Conclusion

We conclude that the application conforms to our rules for authority to provide facilities-based local exchange and interexchange telecommunications services. Accordingly, we shall approve the application subject to the terms and conditions set forth herein.

V. Request to File Under Seal

Applicant requests that the financial information filed with this application be filed under seal. The financial information consists of financial statements and estimated customer base. Applicant represents that the information is proprietary and sensitive. The information, if revealed, would place Applicant at an unfair business disadvantage. We have granted similar requests in the past and will do so here.

VI. Categorization and Need for Hearings

In Resolution ALJ 176-3088 dated May 16, 2002, the Commission preliminarily categorized this proceeding as ratesetting, and preliminarily determined that hearings were not necessary. No protests have been received. There is no apparent reason why the application should not be granted. Given these developments, a public hearing is not necessary, and it is not necessary to disturb the preliminary determinations.

VII. Comments on Draft Decision

No protests were filed in this proceeding. Therefore, this is an uncontested matter, in which the decision grants the relief requested. Accordingly, pursuant to Pub. Util. Code Section 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

VIII. Assignment of Proceeding

Michael Peevey is the Assigned Commissioner and Jeffrey P. O'Donnell is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. The final MND was prepared in compliance with, and pursuant to, CEQA.
2. The final MND represents the Commission's independent judgment.
3. Notice of this application appeared in the Daily Calendar on May 16, 2002.
4. No protests were filed.
5. Hearings are not required.
6. Public disclosure of the financial information filed under seal would place Applicant at an unfair business disadvantage.

Conclusions of Law

1. Public convenience and necessity require Applicant's local exchange and interexchange services to be offered to the public subject to the terms and conditions set forth herein.

2. Applicant must agree to, and is required to, carry out the mitigation measures in the final MND in compliance with CEQA.

3. With the incorporation of the mitigation measures in the final MND, Applicant's proposed project will not have potentially significant adverse environmental impacts.

4. The final MND should be adopted pursuant to CEQA.

5. Applicant's construction projects addressed in the final MND should be approved.

6. Applicant's request to file its financial information under seal should be granted for two years.

7. Because of the public interest in local exchange and interexchange services, the following order should be effective immediately.

O R D E R

IT IS ORDERED that:

1. A certificate of public convenience and necessity is granted to Looking Glass Networks, Inc. (Applicant) to operate as a facilities-based provider of local exchange and interexchange services, subject to the terms and conditions set forth below.

2. Applicant is authorized to construct the facilities addressed in the final Mitigated Negative Declaration (final MND), subject to the terms and conditions set forth below. The Introduction, Project Description, and Environmental

Determination of the final MND are included as Attachment A. The Implementation and Monitoring Plan from the final MND is included as Attachment B.

3. The entirety of the final MND shall be attached to the formal file copy of this decision and is incorporated herein by reference. It can be found at the Commission's web site @ www.cpuc.ca.gov.

4. The final MND is adopted pursuant to the California Environmental Quality Act.

5. Applicant shall fully implement the mitigation measures described in the final MND.

6. Applicant shall enter into a cost reimbursement agreement with the Commission for expenses accrued from implementing the mitigation and monitoring plan as described in the final MND. Compliance with this agreement is a condition of approval of the authority granted herein.

7. The Commission's Energy Division shall supervise and oversee the construction of the project insofar as it relates to monitoring and enforcement of the mitigation measures described in the final MND. The Energy Division may designate outside consultants, working under Energy Division direction and control, to perform on-site monitoring tasks. The Commission project manager (Energy Division, Environmental Projects Unit) shall have the authority to issue a Stop Work Order on the entire project, or portions thereof, for the purpose of ensuring compliance with the mitigation measures described in the final MND. Construction may not resume without a Notice to Proceed issued by the Environmental Projects Unit of the Energy Division.

8. Applicant's request to have the financial information filed with this application kept under seal is granted for two years from the effective date of this

decision. During that period the information shall not be made accessible or disclosed to anyone other than the Commission staff except on the further order or ruling of the Commission, the Assigned Commissioner, the assigned Administrative Law Judge (ALJ), or the ALJ then designated as Law and Motion Judge.

9. If Applicant believes that further protection of the information kept under seal is needed, it may file a motion stating the justification for further withholding of the information from public inspection, or for such other relief as the Commission rules may then provide. This motion shall be filed no later than one month before the expiration date.

10. This application is closed.

This order is effective today.

Dated February 27, 2003, at San Francisco, California.

MICHAEL R. PEEVEY
President
CARL W. WOOD
LORETTA M. LYNCH
GEOFFREY F. BROWN
SUSAN P. KENNEDY
Commissioners

ATTACHMENT A

STATE OF CALIFORNIA GRAY DAVIS, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FINAL MITIGATED NEGATIVE DECLARATION

LOOKING GLASS NETWORKS' APPLICATION NO. A. 02-05-029, METROPOLITAN AREA NETWORK PROJECT

IX. Introduction

Pursuant to California Public Utilities Code Section 1001, Looking Glass Networks (LGN) submitted an application for a Certificate of Public Convenience and Necessity (CPCN) for the proposed project to install fiber optic conduits and related facilities to urban areas of the San Francisco Bay Area and Los Angeles Basin. The application was filed on May 9, 2002 and includes the Proponent's Environmental Assessment (PEA) prepared by LGN pursuant to Rules 17.1 and 17.3 of CPUC's Rules of Practice and Procedure. As part of the environmental review process, a Draft Initial Study and Mitigated Negative Declaration (IS/MND) was prepared by the CPUC in accordance with the California Environmental Quality Act (CEQA) (Section 21000 et seq., Public Resources Code) and the updated State CEQA Guidelines (Title 14, Chapter 3, Section 15000, et seq., Code of Regulations). A 30-day public review period for the Looking Glass Networks Draft IS/MND commenced on November 26, 2002, and concluded on December 26, 2002. The Draft IS/MND was specifically distributed to involved or otherwise interested public agencies and organizations.

Based on the comments received on the Draft IS/MND, this Final MND has been prepared. It should be noted that the Final IS/MND incorporates the Draft IS/MND along with the modifications that were made to the Draft IS/MND in response to comments (see Section C of this Final MND).

X. Project Description

As described in Section 3 of the Draft IS/MND, as part of its application, LGN seeks CPUC approval to install conduit and related facilities to create a Metropolitan Area Network to serve the California metropolitan areas of the San Francisco Bay and the Los Angeles Basin. The project consists of (1) the construction of facilities (including tie-ins and manhole installation),

and (2) the repair or replacement of existing conduit through which LGN would pull fiber optic cable.[1]

The construction process for the installation of new underground conduit typically involves conduit installation, fiber optic line installation, and splicing of the fiber optic lines. For conduit installation, the Applicant proposes to utilize a mixture of company-owned outside plant (OSP) facilities. Potentially leased conduit and/or fiber would be deployed in one of three fashions: underground facilities, aerial facilities, or leased structures, depending on geographical location and whether sensitive resources could be encountered. Following are descriptions of the three leased conduit and/or fiber installation types:

- Underground facilities would be installed primary via trenching in dense urban areas and via directional boring methods in suburban or less dense urban areas. In trench installations, LGN would install two 4-way 1.5-inch rigid polyvinyl chloride (PVC) conduit packs buried at a depth of 36 inches (top of conduit). In directional boring installations, 8 high-density polyethylene (HDPE) conduits would be pulled through the borehole.
- LGN's basic method of installation for aerial facilities would be to install suspension clamps at each pole or supporting structure location. Cables would then be supported (lashed) to high-strength galvanized suspension strands held in place by the suspension clamps. Aerial facilities could also be in the form of a bridge attachment; bridge attachments commonly occur either by hanging the conduit to the exterior of the bridge structure or by installing the conduit within an existing cell or continuous void that runs the entire length of the bridge.
- LGN's proposed use of leased structures involves leasing existing subsurface conduit and/or fiber from a telephone company, municipality, or other third party entity.

Once the conduit is in place, fiber optic cable would be installed, generally by using a powered pulling device with hydraulic-powered assist wheels. A pull line would be attached to a plug that would be pushed through the conduit by air pressure. When the plug emerges at the end of the conduit section or access point, the pull line would be attached to the fiber optic cable. The pull line would then be pulled back through the conduit section, threading the cable through the conduit as it returns to the point of entry. The cable would be spliced in splice cases located in handholes or manholes with sufficient slack allowed.

LGN's Application did not define the final alignments that would be used for proposed project construction. However, LGN has estimated the general areas where construction would occur. These areas are referred to as study zones. Study zones were identified in the San Francisco Bay Area and the Los Angeles Basin that encompass targeted aggregation points, or target buildings,

[1] The installation of fiber optic cable, which occurs after the fiber optic conduit has been installed, is not included as part of the proposed project; cable installation is covered under LGN's existing CPCN.

where laterals could be installed to the existing backbone, including locations where there are known discontinuities of existing conduit systems.

Because LGN's Application did not identify final project alignments, LGN incorporated a *Programmatic Process* as part of its project implementation and the Draft IS/MND evaluated impacts on a programmatic level. Therefore, as a component of the project description, the CPUC and all responsible agencies will have an additional opportunity to review and comment on the specific construction plans prior to construction in order to determine whether the current program level of environmental review is appropriate for the individual work areas, schedules, and methods that will be defined. The Programmatic Process would require LGN to define each specific activity in a manner that would allow the CPUC and responsible agencies to insure that the proposed activities would be consistent with both the Project Description and the project mitigation measures identified in Section D of this document. Refer to Section 3.5 of the Draft IS/MND for more details about the project's Programmatic Process.

XI. Environmental Determination

The Initial Study (Section 4 of the Draft IS/MND) was prepared to identify the potential effects on the environment from the construction and operation of the proposed project and to evaluate the significance of these effects. The Initial Study was based on information presented in LGN's PEA filed on May 9, 2002 and other environmental analyses of the project. Mitigation Measures are recommended as a result of the Initial Study's analysis, and Looking Glass Networks has agreed to implement these measures.

Based on the Initial Study, the project as proposed by Looking Glass Networks would be mitigable to less than significant effects or no impacts in the areas of aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards & hazardous materials, hydrology and water quality, land use, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems. Implementation of the project Mitigation Measures would avoid all potential impacts or reduce them to less than significant levels.

A Mitigation Implementation and Monitoring Plan (Section D) has been prepared to ensure that the Mitigation Measures are properly implemented. The plan describes specific actions required to implement each measure, including information on the timing of implementation and monitoring requirements.

_____ _____

Paul Clanon, Director Date
Energy Division
California Public Utilities Commission

(END OF ATTACHMENT A)

ATTACHMENT B

D. MITIGATION IMPLEMENTATION AND MONITORING PLAN

D. MITIGATION IMPLEMENTATION AND MONITORING PLAN

Looking Glass Networks (LGN) seeks CPUC approval to install conduit and related facilities to create a Metropolitan Area Network to serve the California metropolitan areas of the San Francisco Bay and the Los Angeles Basin. The project consists of (1) the construction of facilities (including tie-ins and manhole installation), and (2) the repair or replacement of existing conduit through which LGN would pull fiber optic cable.[2] Construction is anticipated to commence in early 2003.

An Initial Study was prepared to assess the potential effects on the environment from the various components of the proposed project. The Initial Study was prepared based on information in the Proponent's Environmental Assessment (PEA), a project site visit, and supplemental research. The majority of the proposed project's impacts would occur during project construction, as a result of disturbance caused by construction activity.

The purpose of this Mitigation Implementation and Monitoring Plan is to ensure that the mitigation measures that LGN has agreed to are adequately implemented. This plan includes specific actions to be taken to implement each measure, information on monitoring requirements, and the timing of implementation (see Table D-1). Unless otherwise indicated, the mitigation measures presented in Table D-1 apply to both the San Francisco Bay Area and Los Angeles Basin study zones.

Construction field monitoring shall be carried out by a CPUC-designated environmental monitor to ensure that the measures are implemented. In all instances where non-compliance occurs, the CPUC's designated environmental monitor shall issue a warning to the construction foreman and LGN's project manager. Continued non-compliance shall be reported to the CPUC's designated project manager. Any decisions to halt work due to non-compliance shall be made by the CPUC. The CPUC's designated environmental monitor shall keep a record of any incidents of non-compliance with mitigation measures. Copies of these documents shall be supplied to LGN and the CPUC.

LGN has incorporated a *Programmatic Process* as part of its project description and the Draft IS/MND evaluated impacts on a programmatic level. Therefore, as a component of the project description the CPUC and all responsible agencies would have an additional opportunity to review and comment on the specific construction plans prior to construction in order to determine whether the current program-level of environmental review is appropriate for the individual work areas, schedules, and methods that will be defined.

Pursuant to the proposed Programmatic Process, LGN may not begin construction on any activities within a given study zone until the CPUC specifically authorizes the construction of such facilities in that study zone by issuance of a Notice to Proceed (NTP). To initiate the NTP approval process for each of the 24 study zones, LGN must submit to the CPUC the proposed route-specific construction plans and a detailed description of the proposed activity in the form of work plans. Each work plan must contain the following information at a minimum: description of the proposed construction; environmental checklist; and agency review (see Section 3.5.1 of the Draft IS/MND for more details about work plan requirements).

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[2] The installation of fiber optic cable, which occurs after the fiber optic conduit has been installed, is not included as part of the proposed project; cable installation is covered under LGN's existing CPCN.

Prior to submittal of a work plan for a particular study area, LGN must identify and submit a list of all trustee and responsible agencies, including all special districts, and all local jurisdictions (cities and counties) in which activities under the work plan will occur, as well as all regional resource and planning agencies related to the location of the proposed activities. LGN shall provide a draft notice of construction and the list of agencies described above to the CPUC for review and approval 14 days prior to the submittal of the work plan.

Following the approval of the draft notice, LGN may submit a work plan for the proposed activities within the applicable study zone that is specifically described in the notice of construction. Upon submittal of the work plan to the CPUC, LGN will issue the notice of construction and the work plan to all agencies verified by the CPUC and others the CPUC may deem appropriate for a 21-day review period. Additionally, in conjunction with the agency notification and in coordination with the CPUC, LGN shall post a notice of construction along the project route/location and notify all current occupants and property owners adjacent to the proposed work plan location(s). Both the agency notification and public notification shall solicit comments on whether the IS/MND and its mitigation covers the project activities and their impacts described in the work plan. During the 21-day notification period, the CPUC will consider any relevant comments or concerns from the agencies and the public that may substantially influence issuance of an NTP for the proposal within the applicable study zone.

CPUC staff will review the work plan and supporting documentation upon receipt of the proposal and provide comments to LGN. If the work plan is reviewed and it is determined that the activity does not fall within the scope of the approved IS/MND, and/or CPUC staff determine that any impacts would not be mitigated to a less than significant level, then the work plan would be considered outside the scope and LGN would be informed that subsequent environmental analysis would be required.

If all required conditions are met (see Section 3.5.3 of the Draft IS/MND), the CPUC will issue an NTP within approximately 21 days of the end of the notification period (or approximately 42 days from work plan submittal) regarding its acceptance or denial of the activities proposed within the work plan.

Mitigation Implementation And Monitoring Plan

	Mitigation Measure	Implementation Actions	Monitoring Requirements
	AES-1 LGN shall (1) maintain orderly staging and construction areas; (2) identify and comply with local regulations and requirements concerning architectural design and landscaping; (3) design project facilities to be unobtrusive and to not conflict with the character of the surrounding setting. LGN shall also restore conduit installation sites to pre-construction conditions. Prior to construction, the Applicant shall submit to the CPUC written documentation of consultation with the local agencies associated with each study zone regarding the appropriate architectural design and landscaping practices that the Applicant would implement before, during, and after construction.	LGN to implement measure as defined.	CPUC to verify project construction plans comply with measure.
	AES-2 Construction lights shall be directed away from the visual field of motorists and pedestrians along any streets or ROWs. No nighttime construction (between the hours of 8:00 p.m. and 7:00 a.m.) shall occur within 500 yards of any residence or non-residential sensitive use, unless otherwise approved by the applicable jurisdiction.		
	AQ-1 Mitigation of temporary construction impacts on air quality shall consist of implementation of Bay Area Air Quality Management District–recommended dust abatement measures for work in the San Francisco Bay Area study zones and implementation of similar types of measures for work in the Los Angeles Basin study zones as required under the South Coast Air Quality Management District's Rule 403. For work in the Los Angeles Basin, construction-related mitigation shall include additional measures to reduce emissions of ozone precursors and particulates from use of construction equipment. LGN shall comply with all SCAQMD permit requirements and SCAQMD Rule 403 as follows: Use of diesel fuel with a sulfur content not to exceed 0.05 percent by weight to the extent feasible; and Implementation of the measures required under SCAQMD Rule 403 (as described in Section 4.4.1) for high wind and normal wind conditions to reduce PM-10 emissions from the various fugitive dust sources associated with project construction, and maintenance of the necessary documentation that demonstrates compliance with the rule.	LGN to implement measure as defined.	CPUC site visit to verify compliance.
	AQ-2 For project construction within the Bay Area Air Quality Management District, the Applicant shall implement the following dust abatement measures for individual construction sites that are larger than 4 acres or if any portion of the construction site is within 50 feet of sensitive receptors: Water all active construction areas at least twice daily. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. Pave, apply water 3 times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site. Install windbreaks, or plant trees/vegetative windbreaks at windward side(s) of construction areas. Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph. Limit the area subject to excavation, grading, and other construction activity at any one time. **Applies to San Francisco Bay Area Study Zones Only**	LGN to implement measure as defined.	CPUC site visit to verify compliance.

Mitigation Measure		Implementation Actions	Monitoring Requirements
AQ-3	LGN shall comply with the following requirements for project construction: Use of California on-road diesel fuel for all diesel-powered construction equipment; Use of construction equipment that is properly tuned and maintained in accordance with manufacturer's specifications; Use of best management construction practices to avoid unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues shall be kept with their engines off, when not in use); and Suspension of emissions-generating construction activities during "Stage 2" smog alerts. Stage 2 air pollution episodes occur under the California Air Pollution Emergency Episode **Applies to Los Angeles Basin Study Zones Only**	LGN to implement measure as defined.	CPUC site visit to verify compliance.
AQ-4	For project construction within the South Coast Air Quality Management District, LGN shall comply with the following requirements: Employ a maximum of 5 work crews on any given workday with a maximum of 3 work crews using the street trenching technique, unless all equipment is compliant with California emission standards for engines manufactured after 1995; or Employ a maximum of 6 work crews on any given workday with a maximum of 4 work crews using the street trenching technique, if all equipment is compliant with California emission standards for engines manufactured after 1995. **Applies to Los Angeles Basin Study Zones Only**	LGN to implement measure as defined.	CPUC site visit to verify compliance.
BIO-1	Biological surveys shall be performed prior to installation activity in areas where roads traverse open agricultural areas and grasslands, and are located near streams. Areas that could support special status wildlife species generally shall be avoided by project design (streams, grasslands, marshlands), and other restrictions shall apply to work in close proximity to sensitive resources. Where identified, sensitive resources shall be avoided by minor rerouting of the cable route within roads, boring under the resource (e.g., streams), attaching the conduit to an existing bridge, where applicable, or trenching during a time of year when sensitivity is low (in the case of nesting birds). Conduit shall be bored under streams that could support threatened or endangered species or other resources of special value or attached to bridges. In most cases, no construction activities shall be conducted within 20 feet of the top of bank or riparian stream vegetation. LGN shall acquire all permits and authorizations required by federal, State, regional, and local jurisdictions to construct near areas with sensitive biological resources. Throughout the life of the project, additional species may be listed or designated as special status, and LGN shall comply with any new requirements of the USFWS or CDFG for such species. Specific sensitive areas and widths of approved corridors shall be defined in the work plans submitted in the Programmatic Process.	LGN to submit surveys, permits, and work plans to CPUC for review and approval prior to the start of construction; implement measure as defined.	CPUC to review survey report and work plans; monitor construction activities for compliance with measure and permit stipulations.
BIO-2	The Applicant shall perform no open trench crossings at any stream, wetland feature or other waters of the United States unless otherwise identified by a Stream Bed Alteration Agreement, U.S. Army Corps of Engineer 404 Permit, and/or any other required permits. Stream or wetland crossings shall be performed either by bridge attachment or by directional bore. For directional bores at streams that do not support sensitive wildlife resources within 500 feet of the construction site (e.g., at channelized or unvegetated waterways), a qualified biological monitor shall visit the site at least once daily during construction. LGN shall provide full-time biological monitoring during all construction activities at stream or channel crossings that contain either flowing water, sensitive species, riparian or wetland vegetation. The LGN monitor shall ensure that State and/or federal wetland protection guidelines are followed and that an adequate setback of at least 20 feet is observed at wetland and/or riparian (woody vegetation) edges that provide suitable habitat for special status species. The 20-foot setback from riparian vegetation is considered an initial guideline that may be modified at specific sites following informal consultation with federal and State resource agencies, and as new information becomes available regarding wildlife habitat use. A resource specialist shall inspect all stream crossings prior to construction, additional sites that have not now been identified as potential habitat may become occupied at a later time (e.g., by nesting raptors).	LGN to obtain applicable permits and submit them to CPUC for review; implement measure as defined.	CPUC to review work plans to ensure compliance with measure and monitor construction activities for compliance with measure and permit stipulations.

Mitigation Measure		Implementation Actions	Monitoring Requirements
BIO-3	LGN shall avoid riparian and wetland habitats that support special-status fisheries and wildlife, by establishing and observing exclusion zones consistent with current regulatory requirements for sensitive species and associated habitat. This measure shall apply to, but not be limited to, the following large creeks and streams that provide potential habitat for Pacific lamprey and Central California coast steelhead (and Central coast Chinook salmon in the Guadalupe River): Coyote Creek, Guadalupe River, Los Gatos Creek, and San Francisquito Creek. Additionally, this measure also applies to vegetated tributaries to the above-mentioned waterways and to freshwater and brackish water emergent wetlands and associated upland habitats bordering San Francisco Bay.	LGN to implement measure as defined. Work plans will indicate what areas of the project are applicable to measure.	CPUC to review work plans; conduct site visit to verify compliance.
BIO-4	Where construction is proposed to occur near riparian and salt marsh habitats that support special-status nesting birds as defined below, the Applicant shall limit construction periods to outside the breeding season. *Tricolored Blackbird, Saltmarsh Common Yellowthroat, Alameda Song Sparrow*. For project activities within 250 feet of potential nesting habitat for tricolored blackbird, saltmarsh common yellowthroat, and Alameda song sparrow, surveys shall be conducted to determine the presence of nesting birds no more than 2 weeks prior to construction in March through August. If pre-nesting or nesting activity is identified, a determination shall be made in consultation with CDFG as to whether or not construction will impact nesting birds. If it is determined that construction will impact nests, construction within 250 feet of the nesting locations shall be delayed until juvenile birds have fledged. *Western Snowy Plover, California Least Tern, California Clapper Rail.* To avoid disrupting nesting California clapper rail, western snowy plover, and California least tern, construction activities in areas that provide potential habitat for these species, as identified in the Redwood City Study Zone and Mountain View Study Zone, shall occur outside of the nesting season (February 1 through August 31) for these species. If construction activities take place during the nesting season and the survey methodology is accepted by the USFWS, a qualified biologist shall conduct a pre-construction survey according to accepted protocols and report whether or not there is occupied nesting habitat for the above-listed species within 700 feet of proposed construction activities. If any of the species listed above are identified, construction within 700 feet of the nest shall be delayed until the adult and/or juvenile plovers, terns, or rails are no longer using the nest as the center of their activity. Protocol-level presence/absence surveys may not be feasible in the Redwood City Study Zone due to the large expanse of marshlands present that abut the project alignment. If surveys are deemed infeasible in this area, seasonal avoidance measures shall apply as previously described.	LGN to submit surveys to CPUC, CDFG and USFWS for review and approval; implement measure as defined.	CPUC to review surveys and consult with CDFG and USFWS if necessary; CPUC site visit to verify compliance.
Applies to San Francisco Bay Area Study Zones Only			
BIO-5	The Applicant shall retain qualified biologists and resource specialists to monitor construction activities where sensitive resources have been identified, as identified in Table 4-10. A biological resource monitor shall be present constantly for bores or bridge attachments with sensitive in-stream or downstream resources, and in areas where the presence of special status species is known or suspected. Monitors shall be hired and trained prior to construction and shall be responsible for pre-construction surveys, staking resources, onsite monitoring, documentation of violations and compliance, coordination with contract compliance inspectors, and post-construction documentation. Resource monitors shall be familiar with the wildlife species and other sensitive biological resources in the general project area and qualified to recognize potential construction effects to these resources. Monitoring shall be particularly intensive near identified habitat for federal and State-listed species, as a "no take" approach has been adopted for the project.	LGN to implement measure as defined.	CPUC to review resume of biologist and resource specialist; CPUC site visit to verify compliance.
BIO-6	Biological monitors, employed by LGN and approved by the CPUC, shall locate and stake previously identified sensitive resources before construction activities begin in specified segments and shall inspect areas prior to construction to ensure that barrier fencing, stakes, and required setback buffers are maintained. Avoidance measures and buffer distances vary for each species and are specified for some species in Mitigation Measures BIO-4, BIO-11, and BIO-13. The specific buffer zone distance will be determined by the resource agencies (CDFG and USFWS). The Applicant's biological monitor shall be responsible for monitoring construction activities in areas that support special-status species, woody riparian vegetation, wetlands, and perennial (i.e., flowing at the time of construction) drainage crossings. The monitors shall also be responsible for obtaining clearance from the resource agencies for deviations from avoidance measures described in Mitigation Measures BIO-2, BIO-3, BIO-4, and BIO-7 (e.g., reducing construction exclusion zone widths near sensitive biological resource locations).	LGN to avoid buffer zones; obtain clearance from resource agencies; implement measure as defined.	CPUC to monitor construction activities for compliance.

Mitigation Measure		Implementation Actions	Monitoring Requirements	
BIO-7	If avoidance of sensitive wildlife species habitat is not feasible (e.g., by modifying the route or boring), then the Applicant shall conduct field surveys for special status species potentially occurring within sensitive areas using current USFWS or CDFG survey protocols to determine species presence or absence. If species that are listed under either the federal or State Endangered Species Acts are present (e.g., Central California coast steelhead or California red-legged frog), or are presumed to be present after informal consultation with USFWS and/or CDFG, then a formal consultation and Biological Assessment in support of a Biological Opinion may be required if complete habitat avoidance is not feasible. If a Biological Opinion is required, no construction activity will be permitted until the applicable resource agencies determine that the proposed mitigation (in the Biological Opinion) will result in less than significant impacts to the affected species.	LGN to submit surveys to CPUC, CDFG and USFWS for review and approval; implement measure as defined.	CPUC to review surveys and consult with CDFG and USFWS if necessary; CPUC site visit to verify compliance.	
BIO-8	The Applicant shall conduct Worker Environmental Awareness Program (WEAP) training for construction crews All LGN construction crews and contractors shall participate in WEAP training prior to starting work on the project. The WEAP training shall include a brief review of the special-status species and other sensitive resources that could exist in the project area (including their life history and habitat requirements), the locations of sensitive biological resources, and their legal status and protection under the U.S. Endangered Species Act of 1973 (6 USC 1536). The education program shall include materials describing sensitive resources, resource avoidance, permit conditions, and possible fines for violations of State or federal environmental laws. The program shall cover the mitigation measures, environmental permits, and proposed project plans, reclamation plans, and any other required plans. The Applicant shall be responsible for ensuring that all project personnel and subcontractors adhere to the guidelines and restrictions. Training shall be conducted as needed — including morning "tailgate" sessions — to update crews as they advance into sensitive areas, and to educate new personnel brought on the job during the construction period. Project personnel will receive a hardhat sticker or be issued a card verifying compliance with the above mitigation measure. In addition, a record of all personnel trained during the project will be maintained and made available for compliance verification.	LGN to Implement measure as defined.	CPUC to review program materials and record of personnel trained.	

Mitigation Measure		Implementation Actions	Monitoring Requirements	
BIO-9	The Applicant shall confine construction equipment and associated activities to the approved ROW at all locations. Construction impacts shall be limited to a 20-foot ROW in areas that support sensitive resources (e.g., near areas that support riparian and wetland communities and special-status species adjacent to the work area), as defined in Table 4-10 and delineated by qualified biologists or resource specialists prior to construction. In sensitive areas that are being avoided by directional boring and drilling, drill rigs and equipment staging shall remain outside of sensitive habitats, with an adequate buffer, consistent with established Resource Agency Guidelines to avoid potential adverse effects to the resource. Work area boundaries shall be delineated with flagging or other marking to minimize surface disturbance associated with vehicle straying and minimize the potential for inadvertent worker intrusion into sensitive areas. Special habitat features identified by the resource monitor shall be avoided and previously disturbed areas within the project ROW shall be utilized for stockpiling excavated materials, equipment storage, and vehicle parking. During WEAP training (Mitigation Measure BIO-8), construction personnel shall be informed of the importance of maintaining a narrow work corridor. The resource coordinator, with support from resource monitors, as necessary, will ensure that construction equipment and associated activities avoid any disturbance of sensitive resources outside the construction corridor.	LGN to delineate work area boundaries and Implement measure as defined.	CPUC to monitor construction activities for compliance.	
BIO-10	After the Applicant has identified specific project routes, the Applicant shall carry out focused pre-construction biological resource surveys consistent with approved survey protocols, to identify the location of sensitive biological resources. Sensitive resources shall be clearly mapped and marked on construction drawings or project maps before construction in these areas. If sensitive resources cannot be avoided, no work shall be authorized until the appropriate resources agencies (CDFG, USFWS, NMFS) determine that the action will not result in significant impacts to biological resources (see Mitigation Measure BIO-7).	LGN to submit surveys to CPUC, CDFG, USFWS, and NMFS for review and approval; implement measure as defined.	CPUC to review surveys and consult with CDFG, USFWS, and NMFS if necessary; CPUC site visit to verify compliance.	
BIO-11	The Applicant shall perform pre-construction surveys for burrowing owls along all new project routes, in all areas that may provide suitable nesting habitat. This includes the entire Mountain View, San Jose, North San Jose, Milpitas, Redwood City Study Zones, and any other zones known or determined to potentially support nesting habitat for this species. All project activity within the five identified study zones shall be surveyed by a qualified biologist to determine the presence of nesting borrowing owls. No more than 2 weeks before construction, a qualified biologist shall conduct a survey for occupied owl burrows within 500 feet of the construction corridor (access permitting) in areas that support potential owl habitat. The survey shall conform to California Burrowing Owl Consortium protocol, which includes up to four surveys on different dates if there are active owl burrows present.	LGN to submit surveys to CPUC, for review and approval; implement measure as defined.	CPUC to review surveys; CPUC site visit to verify compliance.	

Mitigation Measure		Implementation Actions	Monitoring Requirements
BIO-12	The Applicant shall avoid disturbing active owl burrows and standard CDFG guidelines shall be implemented during the non-breeding season. If occupied owl burrows are found during pre-construction surveys (Mitigation Measure BIO-11), a qualified biologist shall determine whether or not project construction has the potential to impact the burrows so as to disrupt reproductive behavior. A biologist shall monitor all construction activities, consistent with CDFG requirements. If construction is determined not to adversely affect occupied burrows or disrupt breeding behavior, construction may proceed without seasonal timing restrictions, though other applicable mitigation measures shall still be implemented. If construction could adversely affect occupied burrows during the non-breeding season (August 31 through February 1), owls may be passively excluded from the burrow(s) using one-way doors. At least two suitable, unoccupied burrows (natural or artificial burrows — the latter constructed according to current design specifications) must exist within 300 feet of the occupied burrow before one-way doors are installed. Relocation burrows shall be in place at least one-week before one-way doors are installed on occupied burrows. The one-way doors shall remain in place for 48 hours before burrows are excavated. If construction activities are found to temporarily impact occupied burrows so as to disrupt reproductive behavior during the nesting season (February 1 through August 31), construction within 250 feet of occupied burrows shall be delayed until it is determined that the subject owls are not nesting or until a qualified biologist determines that juvenile owls are self sufficient and no longer using natal burrows as their primary shelter. As no permanent burrowing owl habitat loss is anticipated, no habitat compensation is proposed. If it is determined, however, that there are unavoidable impacts to owls, LGN shall consult with CDFG to determine the appropriate mitigation strategy (on-site or off-site mitigation) and the required compensation ratio (as defined in the Burrowing Owl Mitigation Guidelines).	LGN to implement measure as defined.	CPUC to conduct site visit to verify compliance.
BIO-13	The Applicant shall avoid disturbance to active raptor nests at all locations. Pre-construction surveys shall be performed in the south San Francisco Bay and Los Angeles Basin study zones to identify additional potential raptor nesting sites within the selected project route(s). To avoid potential adverse effects on nesting raptors, a no-disturbance buffer zone shall be established around active nests during the breeding season. No construction shall occur within the specified buffer zones during the breeding season (February 1 to August 31) or until it is determined that young have fledged. If construction activities are proposed to occur only during the non-breeding season (August 31 through February 1), no pre-construction surveys shall be required. If, however, construction activities are scheduled to occur during the breeding season, pre-construction surveys of all potentially active nest sites within 500 feet of the construction corridor (access permitting) shall be conducted in areas that may potentially have nesting raptors, as described in Table 4-10. If surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation shall be required. If active nests are found, a 500-foot, no-disturbance buffer shall be established around the active nest. The size of individual buffers can be adjusted, following a site evaluation by a qualified raptor biologist, which shall involve the presence of topographical features that obstruct the line of site from the construction activities to the nest or observations of the nesting pair during construction based on the level of ongoing disturbance (e.g., farming activities or road traffic) and the observed sensitivity of the birds. Site evaluations and buffer adjustments shall be made in consultation with the local CDFG representative. The portion of the project that is within the designated buffer shall be identified in the field by staking and flagging.	LGN to avoid buffer zones; consult with CDFG and implement measure as defined.	CPUC to monitor construction activities for compliance and consult with CDFG if necessary.

Mitigation Measure	Implementation Actions	Monitoring Requirements
BIO-14 The Applicant shall minimize the disturbance of other waters of the United States and restore the resource to pre-project conditions, as stated in the Corps permit(s). Any waters of the United States disturbed shall be limited to the minimum area necessary to successfully install the fiber optic conduit and cable. In addition, the surface grade shall be restored and topsoil shall be replaced. The Applicant shall implement the following minimum guidelines for reestablishing conditions conducive to natural site regeneration, and shall include any additional measures identified in the Corps permits: Stabilize exposed slopes and stream banks immediately on completion of installation activities. This is anticipated to require minimal effort, since only low-energy seasonal streams or ditches shall be considered for trenching. Beds and banks shall be restored in a manner that encourages vegetation to reestablish to its pre-project condition and reduces the effects of erosion on the drainage system. Remove trees, shrubs, debris, or soils during construction that are inadvertently deposited below the ordinary high-water mark of drainages in a manner that minimizes disturbance of the drainage bed and bank. Implement additional measures that may be required as part of the CDFG, Corps, and/or RWQCB permits that shall be obtained for each project area. These measures shall be incorporated into contract specifications and implemented by the construction contractor. Additionally, LGN shall incorporate all permit conditions into construction specifications. The resource monitors shall routinely inspect construction activities to verify that the above protective measures and permit conditions have been implemented. Avoid installation activities in saturated or ponded wetlands during the wet season (spring and winter) to the maximum extent possible. Where such activities are unavoidable, protective practices, such as use of padding or vehicles with balloon tires, shall be used consistent with resource agency requirements. Where determined necessary by the resource specialists, geotextile cushions and other materials (e.g., timber pads, prefabricated equipment pads, or geotextile fabric) shall be used in saturated conditions to minimize damage to the substrate and vegetation. In wetlands or unvegetated waters of the U.S. that are trenched, the top 12 inches of topsoil from the excavated site with intact roots, rhizomes, and seed bank shall be stockpiled (Corps' Nationwide Permit No. 12 requires that topsoil be stockpiled and replaced). The topsoil and subsoil shall be replaced immediately after construction activities are complete. Review the ground surface to maintain pre-project wetland hydrology. LGN shall incorporate the above measures and all other permit conditions into contract specifications and shall ensure that they are implemented by the construction contractor. Resource monitors shall routinely inspect construction activities to verify that the above protective measures and permit conditions have been implemented.	LGN to consult with Corps and submit permit to CPUC if applicable.	CPUC to monitor construction activities for compliance and consult with Corps if necessary.
BIO-15 The Applicant shall avoid disturbing active bat roosting or maternity colonies and swallow nesting colonies at bridge crossings. Pre-construction surveys shall be completed in compliance with Mitigation Measure BIO-10 to identify potential bat roosting or maternity, and swallow nesting colonies at bridge crossing locations. To avoid potential adverse effects upon bat roosting or maternity and swallow nesting colonies, the designated qualified biologist shall conduct pre-construction surveys of each bridge crossing to determine if bat roosting or maternity, and swallow nesting colonies occur. If pre-construction surveys determine that swallows have begun nesting on a bridge crossing, construction will be delayed till young have fledged. If bat roosting or maternity colonies occur, no bridge crossing construction shall occur during the roosting and breeding period (variable depending on bat species). If pre-construction surveys indicate that a bridge crossing is not being utilized for either bat roosting or breeding or swallow nesting, no further mitigation shall be required. Site evaluations and construction timing adjustments shall be made in consultation with the local resource agencies (USFWS and CDFG representative).	LGN to submit surveys to CPUC, CDFG and USFWS for review and approval; implement measure as defined.	CPUC to review surveys and consult with CDFG and USFWS if necessary; CPUC site visit to verify compliance.

Mitigation Measure		Implementation Actions	Monitoring Requirements
BIO-16	To avoid impacts to nesting shorebirds and songbirds in the San Diego Creek corridor, no project activities shall occur south of Jamboree Boulevard and west of McGaw Avenue in the Irvine/Costa Mesa Study Zone. If necessary, construction may occur within Jamboree Boulevard, provided that other relevant mitigation measures are followed.	LGN to avoid constructing south of Jamboree Boulevard and west of McGaw Avenue.	CPUC to monitor construction plans and activities for compliance.
BIO-17	The Applicant shall conduct pre-construction wetland delineation surveys (per U.S. Army Corps of Engineer's 1987 Manual Standards). Formal wetland delineations will serve to meet Section 404 requirements and will clearly describe wetland boundaries and impact acreages. A formal wetland delineation report shall be submitted to the Corps as part of the Section 404 permitting process. Additional compensatory, restoration, or avoidance measures are not anticipated, but could be stipulated by the regulatory agencies (e.g., Corps, RWQCB, BCDC and CDFG) as part of the permitting process.	LGN to submit delineation surveys to CPUC and Corps, RWQCB, BCDC, and CDFG for review and approval if necessary; implement measure as defined.	CPUC to review surveys and consult with regulatory agencies if necessary.
BIO-18	The Applicant shall avoid and protect jurisdictional wetlands adjacent to construction areas, as specified in the U.S. Army Corps of Engineers Permit. Construction and cable installation activities shall avoid all jurisdictional wetland areas, except as expressly identified in the Corps permit. Resource personnel shall identify the specific location of protective barriers before construction activities are initiated near specified jurisdictional wetlands and shall identify these areas on construction drawings. Protective barrier fencing or staking and flagging shall be installed at least 20 feet from wetland areas or as defined in the Corps permit issued for this project to protect wetlands near the work zone. Resource monitors shall routinely inspect protected areas to ensure that barriers remain in place and are effective. Protective barriers shall remain in place until all construction activities are complete in areas near sensitive resources. The following project features shall also tend to reduce adverse effects to sensitive wetland resources: Cable installation activities shall not occur in any one location for typically more than a day. Only several work sites (based on the number of contractors) shall be affected at any one time throughout the proposed project study zone. Reclamation efforts within the disturbance corridor shall begin immediately and shall involve reestablishing site conditions. This shall involve grading to reestablish pre-construction contours, replacing topsoil in specified areas, and seeding with a sterile grass or native vegetation (as dictated by the individual project reclamation plans).	LGN shall submit project drawing to the CPUC, install fencing or staking, and implement measure as defined.	CPUC to monitor construction plans and activities for compliance.
BIO-19	The Applicant shall contain directional drilling equipment with sedimentation fences, certified weed-free hay bales, sand bags, water bars, and or baffles to contain bentonite around the drilling equipment and ensure protection for waters of the State, sensitive habitat, ditches, and wetlands.	LGN to implement measure as defined.	CPUC to conduct site visit to verify compliance.
BIO-20	The Applicant shall avoid directional drilling during the migration period of special status anadromous species in streams that potentially support these species (see Mitigation Measure BIO-3). LGN shall avoid sensitive fish and wildlife migration corridors along streams and provide on-site biological monitors at these locations to address construction activities that may interfere with migration of anadromous special status fish species or wildlife species. No instream construction activities will be allowed during migrational periods within streams that support special status anadromous species, unless otherwise authorized by CDFG and/or NMFS. LGN shall perform surveys to assess sensitive spawning and rearing areas along the proposed project line. This effort shall be conducted in consultation with CDFG and/or NMFS prior to construction. Spawning and rearing areas shall be identified and construction shall be avoided during critical periods. These surveys shall be conducted only in areas with the potential for special status fish species. The potential for accidental bentonite seeps through frac-outs will be minimized through the measures specified in Mitigation Measure WQ-4. Spills of hazardous materials will be minimized through implementation of measures specified in the SWPPP (Mitigation Measures BIO-5 and WQ-3).	LGN to submit surveys to CPUC, CDFG and/or NMFS for review and approval; implement measure as defined.	CPUC to review surveys and consult with CDFG and/or NMFS if necessary; CPUC site visit to verify compliance.

	Mitigation Measure		Implementation Actions	Monitoring Requirements	
ources					
	CR-1	LGN shall appoint a Cultural Resources Specialist (CRS), or specialists, prior to the start of project-related vegetation clearance, ground disturbance and grading, site or project mobilization, site preparation or excavation activities, implementation of erosion control measures, or movement or parking of heavy equipment or other vehicles onto or over unpaved or natural areas of the project. LGN shall submit to the CPUC, for review and approval, the name(s) and statement of qualifications for its designated cultural resources specialist, or specialists, who will be responsible for implementation of all cultural resources mitigation measures. The statement of qualifications must be sufficient to substantiate that the CRS meets the Secretary of the Interior's proposed Historic Preservation Qualification Standards as published in the Federal Register. Prior to the start of any project-related activity defined above, Looking Glass Networks shall confirm in writing to the CPUC that the approved designated CRS will be available at the start of the project and is prepared to implement the mitigation measures. Ten days prior to the termination or release of a designated CRS, Looking Glass Networks shall obtain the CPUC approval of the proposed replacement CRS.	LGN to submit resume of proposed CRS to CPUC for review and approval.	CPUC to review and approve CRS resume.	
	CR-2	As soon as the exact routes and locations are known, and prior to construction, the CRS shall review all proposed ground-disturbing activities to determine if the proposed action would impact known or potential archaeological resources. If resources are determined to be in the area of the proposed project, the first level of mitigation shall be to redesign or reroute the activity to avoid impacts if the resource has not been the subject of a previous study or deemed eligible for the California Register of Historical Resources. If redesign or avoidance is not feasible, testing of the resource to determine its significance and extent within the proposed project area will be required. A site-specific testing plan shall be submitted to the CPUC for review and approval prior to testing. The requirement shall be based on the feasibility of the testing (i.e., it may not be practical or feasible within a paved road that received heavy traffic), and the type of resource to be evaluated. Should the site be determined to be significant, or if testing/evaluation is not feasible, the site shall be avoided. Monitoring shall be required in those areas that are determined to be sensitive but where no resources are officially recorded. A Cultural Resources Technical Report shall be submitted to the CPUC for review and approval prior to the commencement of construction. If the area has not been surveyed within the past 10 years or the information is deemed inadequate, then an on-site field visit by the CRS will be undertaken by the CRS.	LGN to submit Cultural Resources Technical Report to CPUC for review and approval; implement measure as defined.	CPUC to review report and monitor construction activities for compliance of the report.	
	CR-3	Full-time archaeological monitoring shall occur during ground-disturbing activities at those areas identified as archaeologically sensitive as shown in Tables 4-11 and 4-12. Ground-disturbing activities include, at a minimum, trenching and boring. Monitoring is required within 500 feet of the boundaries of known cultural resources (including extant architectural features) and within 1,000 feet of the locations of modern and historic stream crossings. Monitors must have 2 years of professional experience and be certified by the CPUC. Monitors shall be under the supervision of the CRS. A detailed project specific protocol for monitoring shall be provided as an element of the Cultural Resources Technical Report, per CR-2, and shall include an Unanticipated Discoveries of Cultural Resources Plan. Following is a synopsis of what shall be included in the plan. If cultural resources are located during monitoring, monitors shall immediately halt construction within 250 feet of the find in non-urban area, and 50 feet of the find in urban areas, and notify the CRS. The CRS shall inspect the find. The CRS shall immediately notify the CPUC Environmental Monitor. If construction personnel discover a cultural resource in the absence of a monitor, construction within 250 feet of the find shall be halted and the environmental compliance officer contacted. Construction may begin once the CRS has completed necessary investigations and a written authorization to proceed has been issued by the CPUC.	LGN to implement measure as defined.	CPUC to conduct site visits to verify compliance with measure.	
	CR-4	In the event that fossil remains are encountered, either by the cultural resources monitor or by construction personnel, qualified paleontological specialists shall be contacted. Construction within 100 feet of the find in non-urban areas and 50 feet in urban areas shall be temporarily halted or diverted until a qualified vertebrate paleontologist examines the discovery. The paleontologist shall notify the appropriate agencies and the CPUC Environmental Monitor to determine procedures that shall be followed before construction is allowed to resume at the location of the find. Significant fossils shall be salvaged through a program of excavation, analysis, and documentation approved by the CPUC and appropriate agencies. Fossil remains collected during the salvage program shall be cleaned, sorted, catalogued, and then deposited in a public, non-profit institution with research interests in the materials.	LGN to implement measure as defined.	CPUC to conduct site visits to verify compliance with measure.	

	Mitigation Measure	Implementation Actions	Monitoring Requirements	
	CR-5 The Cultural Resources Technical Report, required pursuant to Mitigation Measure CR-2, shall include an Unanticipated Discoveries of Human Remains Plan. Following is a synopsis of what shall be included in the plan. If human remains are found at any time during project-level vegetation clearance; ground disturbance and grading; site or project mobilization; site preparation or excavation activities; implementation of erosion control measures; or the movement of parking of heavy equipment or other vehicles onto or over the project surface, all work shall immediately stop within 250 feet of the find in non-urban areas and 100 feet of the find in urban areas. The CRS shall be notified immediately and shall, in turn, immediately notify the county coroner for the appropriate county in compliance with Section 7050.5 of the California Health and Safety Code and notify the CPUC Environmental Monitor. Upon the completion of compliance with all relevant sections of the California Health and Safety Code and the conditions of the Unanticipated Discoveries Plan for Human Remains, the CRS shall implement CR-2.	LGN to submit Cultural Resources Technical Report to CPUC for review and approval; implement measure as defined.	CPUC to review report and monitor construction activities for compliance of the report.	
l Soils				
	GEO-1 Prior to the start of construction of a surface structure with a foundation, the Applicant shall provide to the CPUC: Schedules for or proof of geophysical testing to be conducted on the soils at the structure pad sites to determine the geophysical properties of the soils. Certification of the structure footprint design under the Uniform Building Code Seismic Zone Criteria by a Registered Professional Engineer. Certification of engineered fill placement and compaction plans by a Registered Professional Engineer.	LGN shall provide construction plans to the CPUC for review and approval.	CPUC to review plans for compliance.	
azardous Materials				
	HAZ-1 LGN shall ensure proper labeling, storage, handling, and use of hazardous materials in accordance with best management practices and the Occupational Safety and Health Administration's HAZWOPER requirements. LGN shall ensure that all employees are properly trained in the use and handling of these materials and that each material is accompanied by a material safety data sheet deemed adequate by the CPUC. Additionally, any small quantities of hazardous materials stored temporarily in staging areas shall be stored on pallets within fenced and secured areas and protected from exposure to weather. Incompatible materials shall be stored separately, as appropriate. To avoid unexpected releases of hazardous materials, LGN shall employ individuals trained in accordance with the Occupational Safety and Health Administration's HAZWOPER requirements. Additionally, LGN shall submit a written plan to the CPUC for approval prior to construction outlining how to respond if hazardous materials are unexpectedly encountered. The plan shall specify identification, handling, reporting, and disposal of hazardous materials. All hazardous waste materials removed during construction shall be handled and disposed of by a licensed waste disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility. LGN shall require in its contracts that all contractors meet federal, State, and local requirements.	LGN to provide plan to the CPUC for review and approval and implement measure as defined.	CPUC to review and approve plan and monitor construction activities for compliance with plan	
	HAZ-2 A Hazardous Materials Management/Spill Prevention Plan shall be developed and submitted to the CPUC for review and approval prior to construction. The purpose of the plan is to provide on-site construction managers, environmental compliance monitors, and regulatory agencies with a detailed description of hazardous materials management, spill prevention, and spill response/cleanup measures associated with the construction of project elements. The primary objective of the plan is to prevent the spill of hazardous materials; the plan shall be given to all contractors working on the project. At least one copy shall be on-site with the construction manager at all times. Elements of the plan shall include, but not be limited to, the following: Definition of staging areas where refueling, storage, and maintenance of equipment will take place. Such areas shall not be located within 100 feet of drainages or any other body of water, or wetlands or riparian areas, to reduce the potential of contamination by spills. During construction activities, equipment shall be maintained and kept in good operating conditions to reduce the likelihood of line breaks and leakage. Fluids drained from machinery during services at staging areas shall be collected in leak-proof containers and disposed of at appropriate disposal or recycling facilities. No refueling or servicing shall be done without absorbent material (e.g., absorbent pads, mats, socks, pillows, and granules) or drip pans underneath to contain spilled material. Definition of spill control and countermeasures, including but not limited to employee spill prevention/response training and a description of onsite cleanup equipment (e.g., absorbent pads, mats, socks, granules, etc.) available at staging and construction sites. Resource agency notification and documentation procedures.	LGN to submit plan to CPUC for review and approval; implement measure as defined.	CPUC to review and approve plan and monitor construction activities for compliance with plan	

	Mitigation Measure		Implementation Actions	Monitoring Requirements	
	HAZ-3	LGN shall prepare a Health and Safety Plan that includes a contingency plan for hazardous materials and waste operations. Before site activities could proceed, LGN shall submit the plan to the CPUC for review and approval, and once approved shall send the plan to each agency with jurisdiction. The Health and Safety Plan, applicable to all excavation activities, shall establish policies and procedures to protect workers and the public from potential hazards posed by hazardous wastes. The plan shall be prepared according to federal and California OSHA regulations for hazardous waste site Health and Safety Plans. This Health and Safety Plan shall also provide for proper storage and/or disposal of any contaminated soils that meet the definition of a hazardous waste. Such a protocol could include off-site treatment of contaminated materials or disposal at an appropriate landfill. The Health and Safety Plan shall also include contingencies for encountering methane and hydrogen sulfide, including immediate work stoppage if odors are detected. For such a possibility, hydrogen sulfide monitoring equipment shall be available on the construction sites during boring operations at locations within 500 feet of operating or historic oil production fields. If any odors are detected, work shall stop immediately and the area shall be monitored by the Site Health and Safety Officer using a calibrated hydrogen sulfide meter.	LGN to submit plan to CPUC for review and approval; implement measure as defined.	CPUC to review and approve plan and monitor construction activities for compliance with plan	
	HAZ-4	A list search of known State and federal hazardous waste sites and leaking underground tanks within 1,000 feet of the excavation shall be conducted prior to construction to identify high-risk areas, where a moderate or high potential for encountering contaminated soil or groundwater may exist during shallow (6 feet or less) excavations.	LGN to provide search list to CPUC for review	CPUC to review search list	
	HAZ-5	During construction, LGN shall monitor for odors and analyze excavated material with a photo-ionization detector to determine the potential for soil contamination and the need for specialized soil-handling procedures to reduce excavation impacts in areas of suspected contamination.	LGN to implement measure as defined.	CPUC to conduct site visits to verify compliance with measure.	
	HAZ-6	Within high-risk areas identified by Mitigation Measure HAZ-5, excavations shall be observed by a trained health and safety professional equipped with an organic vapor analyzer (or other appropriate methods for detecting anticipated contaminates) to screen excavated materials and ensure worker safety. If contamination is encountered, excavated soils shall be segregated and sampled relative to the profiling requirements of the accepting landfill, and disposed of in accordance with policies of the accepting landfill and applicable regulations.	LGN to implement measure as defined.	CPUC to conduct site visits to verify compliance with measure.	
nd Water Quality					
	WQ-1	The Applicant shall manage construction-induced sediment and excavated spoils in accordance with the requirements of the State Water Resources Control Board (SWRCB) National Pollution Discharge Elimination System (NPDES) permit for stormwater runoff associated with construction activities. Prior to the onset of construction, the Applicant shall complete a Stormwater Prevention Pollution Plan (SWPPP) that outlines Best Management Practices (BMPs) to control discharges from construction areas. The SWPPP shall conform to the standards set forth by the SWRCB and shall be approved by the CPUC and the applicable Regional Water Quality Control Boards. The SWPPP shall ensure that, at a minimum, the following requirements are met: Sediment generated on the project site shall be retained using structural drainage controls. No construction–related materials, wastes, spills or residues shall be discharged from the project. The staging of construction materials, equipment, and excavation spoils shall be performed outside of drainages. Excavated or disturbed soil shall be kept within a controlled area surrounded by a perimeter barrier that may entail silt fence, hay bales, straw wattles, or a similarly effective erosion control technique that prevents the transport of sediment from a given stockpile. In addition, all stockpiled material shall be covered or contained in such a way that eliminates offsite runoff from occurring. Upon completion of construction activities, excavated soil shall be replaced and graded so that post-construction topography and drainage matches pre-construction conditions. Surplus soil shall be transported from the site and disposed of appropriately Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site if necessary.	LGN to submit SWPPP to CPUC and applicable RWQCBs for review and approval; implement measure as defined.	CPUC to review SWPPP and monitor construction activities for compliance with the plan.	

Mitigation Measure		Implementation Actions	Monitoring Requirements
WQ-2	Prior to the commencement of construction within a particular study zone, the Applicant shall provide the CPUC with an outline of the BMPs that will be employed during construction within that study zone. The BMPs shall be approved by the CPUC prior to construction to ensure that the potential for discharge into surface waters during construction is minimized.	LGN to submit BMPs to the CPUC for review and approval	CPUC to review and approve BMPSs; monitor construction activities to ensure compliance with BMPs
WQ-3	Prior to non-storm discharges into surface waters, the Applicant shall provide the CPUC with documentation of obtaining all necessary and applicable approvals, including the following: NPDES general construction permit and SWPPP that describes how non-storm discharges would not adversely impact human health or the environment with the implementation of appropriate BMPs to eliminate or reduce potential pollutants. These BMPs may include, but not necessarily be limited to, the utilization of settling ponds or screens to reduce suspended sediment loads, or if necessary due to contaminated groundwater, use of on-site treatment systems for contaminant removal prior to discharge. Section 404 permit from the U.S. Army Corps of Engineers for discharges into waters of the United States (pursuant to Section 404 of the Clean Water Act). Water Quality Certification (pursuant to Section 401 of the Clean Water Act) from the applicable Regional Water Quality Control Board. The CPUC shall review and approve the non-storm discharge BMPs to ensure impacts are minimized to the maximum extent feasible.	LGN to submit documentation to the CPUC and implement measure as defined.	CPUC to review documentatio n.
WQ-4	Prior to the commencement of directional boring activities near streams, the Applicant shall provide the CPUC a Frac-out Contingency Plan (Plan). The Plan shall outline procedures the Applicant would put in place to minimize the potential for impacts to sensitive resources, and shall document the containment and cleanup equipment that must be present for use at staging areas and construction sites. Specific requirements shall include requiring boring crews to strictly monitor drilling fluid pressures, no nighttime boring unless absolutely required, retaining containment equipment on site, monitoring water quality downstream of the site, and immediately stopping work if a seep into a stream is detected. All bentonite seeps into waters of the State or sensitive habitat shall be immediately reported to the LGN resource coordinator, the CPUC, and the appropriate resource agencies. In addition, the Plan shall outline the clean up and reporting measures that must be utilized in the event of a frac-out. The CPUC and the U.S. Army Corps of Engineers (for directional bores under navigable water) shall approve the Plan prior to the onset of directional boring activities and the CPUC shall monitor the activities to ensure that all facets of the Plan are carried out.	LGN to submit Plan to CPUC and Corps (if applicable) for review and approval; implement measure as defined.	CPUC and Corps (if applicable) to review Plan and monitor construction activities for compliance with the plan.
WQ-5	The Applicant shall not engage in any trenching or excavation activities across flowing or sensitive waterways. The Applicant shall install the fiber optic conduits to aerial structures (such as bridges) or use directional boring techniques to install the conduits under the waterway. If construction is required across a dry stream or waterway, the Applicant shall provide the CPUC documentation of those activities prior to the start of construction. The CPUC shall review and approve the plans to ensure the activities would not permanently alter existing drainage patterns or substantially disturb existing vegetation such that increased erosion could occur. Prior to construction, the Applicant shall also provide the CPUC with any necessary permits from other regulatory agencies that are required for construction in a channel.	LGN to provide construction plans to CPUC for review and approval and implement measure as defined.	CPUC to review construction plans and conduct site visits to verify compliance with measure.
LU-1	Prior to construction within each study zone, LGN shall submit to the CPUC written documentation, including evidence of review by the appropriate public works, planning, and/or community development agency for the applicable jurisdictions. This documentation shall include the following: Site plan showing the dimensions and location of the finalized alignment; Evidence that the project meets all necessary requirements; Evidence of compliance with design standards; Copies of any necessary permits or conditions of approval; Records of any discretionary decisions made by of the applicable jurisdictions.	LGN to submit documentation to the CPUC and implement measure as defined.	CPUC to review documentation .

	Mitigation Measure		Implementation Actions	Monitoring Requirements	
e	**LU-2**	If a habitat conservation plan or natural habitat conservation plan area is encountered alongside or in the path of a proposed alignment, plan area boundaries shall be flagged and construction activities will not be permitted within the boundaries. If construction activities within the boundaries are unavoidable, prior to construction, the Applicant shall submit to the CPUC written documentation of consultation with the appropriate agencies associated with the plan area regarding the permits and practices that the Applicant would acquire or implement before, during, and after construction.	LGN to not allow construction activities within conservation plan areas.	CPUC to conduct site visits to verify compliance with measure.	
	NOI-1	LGN shall require construction contractors to comply with the construction-hour limitations and construction equipment standards set forth by each local jurisdiction (summarized in Tables 4-14 and 4-15). For construction in those jurisdictions where there are no specific construction-related standards, LGN shall require its contractors to limit any noise producing construction activity to the hours of 7:00 a.m. to 7:00 p.m., Monday through Saturday. All equipment shall have sound-control devices no less effective than those provided on original equipment. No equipment shall have an unmuffled exhaust. Construction equipment shall be located as far from sensitive receptors (e.g., residences, schools, places of worship, and hospitals) as possible. If traffic control devices requiring electrical power are employed within 500 feet of sensitive receptors, the devices shall be battery/solar powered instead of powered by electrical generators.	LGN to implement measure as defined.	CPUC to conduct site visits to verify compliance with measure.	
	REC-1	The Applicant shall schedule construction to avoid peak use periods (e.g., weekends and holidays) for recreational facilities. The Applicant shall provide onsite notification of recreational access closures at least 2 weeks in advance, through the posting of signs and/or notices.	LGN to provide notice to CPUC for review and approval and implement measure as defined.	CPUC to review and approve notice and verify implementation of measure.	
on and Traffic					
nts.	**TRA-1**	LGN shall obtain all necessary local and State road permits, including encroachment and oversized-load permits, as well as railroad encroachment permits, prior to construction and shall comply with all the applicable conditions of approval. As deemed necessary by the applicable jurisdiction, the road encroachment permits shall require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. The traffic control plan shall include the following requirements unless the applicable jurisdiction directs otherwise: Identify all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow. Develop circulation and detour plans to minimize impacts to local street circulation. This shall include the use of signing and flagging to guide vehicles through and/or around the construction zone. Schedule truck trips outside of peak morning and evening commute hours. Limit lane closures during peak hours to the extent possible. Use haul routes minimizing truck traffic on local roadways to the extent possible. Include detours for bicycles and pedestrians in all areas potentially affected by project construction. Install traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. Store construction materials only in designated areas. Coordinate with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary	LGN to provide all applicable permits to the CPUC for review, and implement as defined	CPUC to review permits and monitor construction activities for compliance.	

Mitigation Measure	Implementation Actions	Monitoring Requirements
TRA-2 LGN shall develop an Emergency Vehicle Access Plan that includes the following: Evidence of advanced coordination with emergency service providers, including but not necessarily limited to police departments, fire departments, ambulance services, and paramedic services. Emergency service providers shall be notified of the proposed project locations, nature, timing, and duration of any construction activities, and shall be asked for advice about any road access restrictions that could impact their response effectiveness. Project construction schedules and routes designed to avoid restricting movement of emergency vehicles to the best extent possible. Provisions to be ready at all times to accommodate emergency vehicles at locations where access to nearby properties may be blocked. Provisions could include the use of platings over excavations, short detours, and/or alternate routes.	LGN to submit plan to CPUC for review and approval; implement measure as defined.	CPUC to review and approve plan and monitor construction activities for compliance with plan

(END OF ATTACHMENT B)